AI-Integrated Hospital Management System with Role-Based Access Control

Mrs. Shubhangi Kshirsagar, Mahesh Sumb, Suraj Pawar, Niraj Suryawanshi, Rahul Taank , Shradha Suse

Department of Computer Engineering

Dr. DY Patil College of Engineering and Innovation, Varale , Pune, Maharashtra, India

Abstract: *This project focuses on building a fully functional Hospital Management System (HMS) aimed at simplifying day-to-day hospital activities through digital tools. It offers secure, role-based access tailored to administrators, doctors, and receptionists, allowing them to efficiently manage appointments, patient details, lab results, and prescriptions. A built-in AI-powered chatbot enhances user interaction by instantly answering queries and helping users navigate the system with ease. Designed with scalability, security, and ease of use in mind, this HMS is well-suited for small to medium healthcare centers looking to modernize and streamline their operations*

Keywords: Hospital Management System (HMS), Web-based application ,Digital healthcare, Role-based access control (RBAC) ,AI-powered chatbot